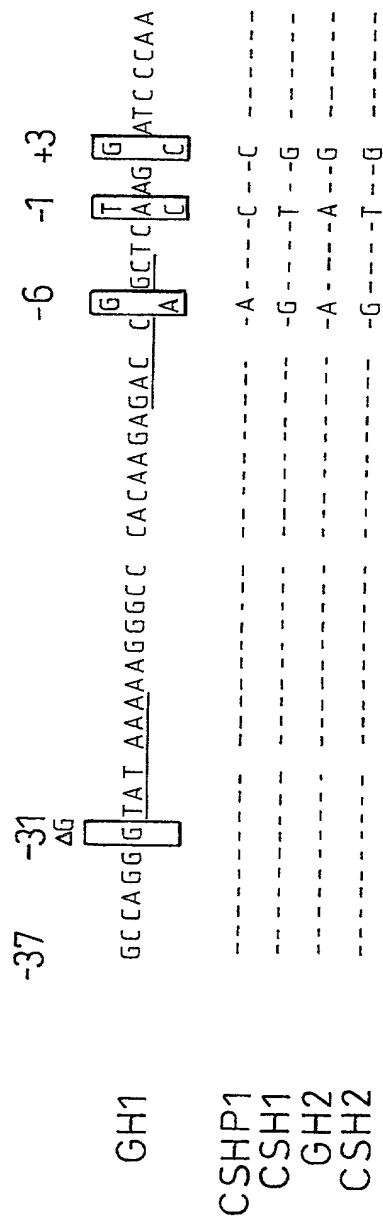
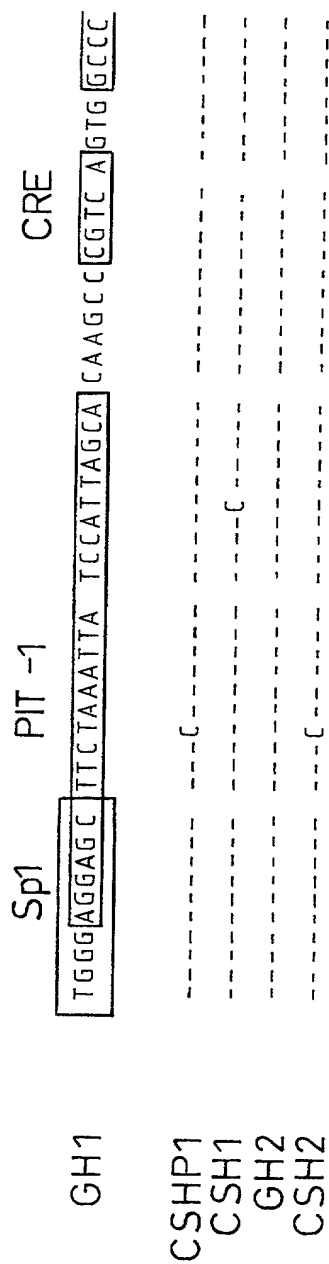


Fig. 2

-136



**Fig. 3**

Figure 4

1-75  
 cccatgccatggttgaaggcagagggtcttggtggtccctctttagatcttgccctaggcctcgacccgtgataa  
 5 ggtacggtaccaacctccgtctccagaccaccagggagagaaatctagaaccggatccggagcctggactatt  
 76-150  
 ggtggggccactctcaaggggtgcaggccaggacctgagccacggaagtgcagggcaggggttaagggttca  
 ccaccccggtgagagttcccaacgtccggtcctggactcgtgccttcagtcctccgtccctcccaattccaaagt  
 151-225  
 tccgaggaacagcccggtccgggcagcccgagatgttcttctgtttccagatgttccaaatgaaaaaacattt  
 aggtccttgcggcaaggcccgctcgggtctacaagaaagaacaaaggtctacaaggtttactttttgtaaa  
 226-300  
 ctctgaaaagctgtcagatgttcagttcatggaataaacagctcagaaatataaacatcacctgaggtcagcttg  
 gagacttttcgacagttacaagtcagtaacctattttgcagtccttatatttgtagtggactccagtcgaac  
 301-375  
 aggcccatgggcccgcagctgctggtgagggtgggtggagagagactgacccgggggagtggggcaaaatctggga  
 tccgggtaccgggcgtaogaccactccaccgacctctctctgactggggcccccctcacccggttttagacct  
 376-450  
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 451-525  
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 526-600  
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 cgtacgagtgtgtccacacacggacctgggac  
 601-675  
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 676-750  
 aatcaccactaaagaacttatccaggtaacacaaaaaacctacctgtaccccgaaaaaatattgaaataaaaaattt  
 ttagtgggtgatttcttgaatagggtccattggttttttttgatggacatggggtctttataactttatttttaaa







**Figure 5 (continued)**

5	+2301	ttatctctgc	cccagtaga	ttgttagctc	cagaagagaa	aggatcatgt	+2350
	+2351	cttttgctta	tctagatatg	cccatctgcc	tggtacaatc	tctggcacat	+2400
	+2401	gttacaggca	acaactactt	gtggaattgg	tgaatgcgat	aatagaagaa	+2450
	+2451	tgagtgaatg	aatgaataga	caaaaggcag	aaatcacgcc	tcaaagaact	+2500
	+2501	tacagtctgg	taagaggaat	aaaatgtctg	caaatagcca	caggcacagg	+2550
10	+2551	caaaggaagg	aggggctatt	tccagctgag	ggcaccccat	caggaaagca	+2600
	+2601	cccagacttt	cctacaacta	ctagacacat	ctcgatgctt	ttcacttctc	+2650
	+2651	tatcaatgga	tctgttccct	ggagataaat	ccccaaagtg	aaattactta	+2700
	+2701	gcacgtccag	ttaggtagat	ccttgggtac	ctcttggttg	ttcagagatc	+2750
	+2751	atcaaccagt	gcaaaccaat	cccccatcaa	tacacagcag	tgcttgcccc	+2800
15	+2801	tctccccccg	aggtcttccg	aggcccttcc	tccgtgcctg	aaccccctgg	+2850
	+2851	acatatcata	tggcaaaact	aagtgtccaa	cgagatatag	gaagtgaaac	+2900
	+2901	acgatgtaca	ctgaaacctg	caatacaaat	atgcagcatg	aagtgcctcg	+2950
	+2951	gttcaactaac	cctgaactacg	ctgggtgcctt	cttttctacc	actttcctta	+3000

20

[illegible]



Figure 6

Growth hormone 1  
5 Gene symbol : *GHI*  
Location : 17q

1 2  
-26 ATG GCT ACA G↓GC TCC CGG ACG TCC CTG CTC CTG GCT TTT GGC CTG -12  
Met Ala Thr G ly Ser Arg Thr Ser Leu Leu Leu Ala Phe Gly Leu

10 -11 CTC TGC CTG CCC TGG CTT CAA GAG GGC AGT GCC TTC CCA ACC ATT 4  
Leu Cys Leu Pro Trp Leu Gln Glu Gly Ser Ala Phe Pro Thr Ile

15 5 CCC TTA TCC AGG CTT TTT GAC AAC GCT AGT CTC CGC GCC CAT CGT 19  
Pro Leu Ser Arg Leu Phe Asp Asn Ala Ser Leu Arg Ala His Arg

20 CTG CAC CAG CTG GCC TTT GAC ACC TAC CAG GAG TTT↓GAA GAA GCC 34  
Leu His Gln Leu Ala Phe Asp Thr Tyr Gln Glu Phe Glu Glu Ala

20 35 TAT ATC CCA AAG GAA CAG AAG TAT TCA TTC CTG CAG AAC CCC CAG 49  
Tyr Ile Pro Lys Glu Gln Lys Tyr Ser Phe Leu Gln Asn Pro Gln

50 ACC TCC CTC TGT TTC TCA GAG TCT ATT CCG ACA CCC TCC AAC AGG 64  
Thr Ser Leu Cys Phe Ser Glu Ser Ile Pro Thr Pro Ser Asn Arg

25 65 GAG GAA ACA CAA CAG AAA TCC↓AAC CTA GAG CTG CTC CGC ATC TCC 79  
Glu Glu Thr Gln Gln Lys Ser Asn Leu Glu Leu Leu Arg Ile Ser

80 CTG CTG CTC ATC CAG TCG TGG CTG GAG CCC GTG CAG TTC CTC AGG 94  
Leu Leu Leu Ile Gln Ser Trp Leu Glu Pro Val Gln Phe Leu Arg

30 95 AGT GTC TTC GCC AAC AGC CTG GTG TAC GGC GCC TCT GAC AGC AAC 109  
Ser Val Phe Ala Asn Ser Leu Val Tyr Gly Ala Ser Asp Ser Asn

35 110 GTC TAT GAC CTC CTA AAG GAC CTA GAG GAA GGC ATC CAA ACG CTG 124  
Val Tyr Asp Leu Leu Lys Asp Leu Glu Glu Gly Ile Gln Thr Leu

4 5  
125 ATG GGG↓AGG CTG GAA GAT GGC AGC CCC CGG ACT GGG CAG ATC TTC 139  
Met Gly Arg Leu Glu Asp Gly Ser Pro Arg Thr Gly Gln Ile Phe

40 140 AAG CAG ACC TAC AGC AAG TTC GAC ACA AAC TCA CAC AAC GAT GAC 154  
Lys Gln Thr Tyr Ser Lys Phe Asp Thr Asn Ser His Asn Asp Asp

155 GCA CTA CTC AAG AAC TAC GGG CTG CTC TAC TGC TTC AGG AAG GAC 169  
Ala Leu Leu Lys Asn Tyr Gly Leu Leu Tyr Cys Phe Arg Lys Asp

45 170 ATG GAC AAG GTC GAG ACA TTC CTG CGC ATC GTG CAG TGC CGC TCT 184  
Met Asp Lys Val Glu Thr Phe Leu Arg Ile Val Gln Cys Arg Ser

50 185 GTG GAG GGC AGC TGT GGC TTC TAG  
Val Glu Gly Ser Cys Gly Phe \*

**Figure 7**

GH variant *Glu-Gly30*  
 5 Location : 17q

1 2  
 -26 ATG GCT ACA G↓GC TCC CGG ACG TCC CTG CTC CTG GCT TTT GGC CTG -12  
 Met Ala Thr G ly Ser Arg Thr Ser Leu Leu Leu Ala Phe Gly Leu

10 -11 CTC TGC CTG CCC TGG CTT CAA GAG GGC AGT GCC TTC CCA ACC ATT 4  
 Leu Cys Leu Pro Trp Leu Gln Glu Gly Ser Ala Phe Pro Thr Ile

5 CCC TTA TCC AGG CTT TTT GAC AAC GCT AGT CTC CGC GCC CAT CGT 19  
 Pro Leu Ser Arg Leu Phe Asp Asn Ala Ser Leu Arg Ala His Arg

15 20 CTG CAC CAG CTG GCC TTT GAC ACC TAC CAG GAG TTT ↓GGG GAA GCC 34  
 Leu His Gln Leu Ala Phe Asp Thr Tyr Gln Glu Phe Gly Glu Ala

2 3  
 35 TAT ATC CCA AAG GAA CAG AAG TAT TCA TTC CTG CAG AAC CCC CAG 49  
 Tyr Ile Pro Lys Glu Gln Lys Tyr Ser Phe Leu Gln Asn Pro Gln

20 50 ACC TCC CTC TGT TTC TCA GAG TCT ATT CCG ACA CCC TCC AAC AGG 64  
 Thr Ser Leu Cys Phe Ser Glu Ser Ile Pro Thr Pro Ser Asn Arg

3 4  
 25 65 GAG GAA ACA CAA CAG AAA TCC ↓AAC CTA GAG CTG CTC CGC ATC TCC 79  
 Glu Glu Thr Gln Gln Lys Ser Asn Leu Glu Leu Leu Arg Ile Ser

80 CTG CTG CTC ATC CAG TCG TGG CTG GAG CCC GTG CAG TTC CTC AGG 94  
 Leu Leu Leu Ile Gln Ser Trp Leu Glu Pro Val Gln Phe Leu Arg

30 95 AGT GTC TTC GCC AAC AGC CTG GTG TAC GGC GCC TCT GAC AGC AAC 109  
 Ser Val Phe Ala Asn Ser Leu Val Tyr Gly Ala Ser Asp Ser Asn

110 GTC TAT GAC CTC CTA AAG GAC CTA GAG GAA GGC ATC CAA ACG CTG 124  
 Val Tyr Asp Leu Leu Lys Asp Leu Glu Glu Gly Ile Gln Thr Leu

35 4 5  
 125 ATG GGG ↓AGG CTG GAA GAT GGC AGC CCC CGG ACT GGG CAG ATC TTC 139  
 Met Gly Arg Leu Glu Asp Gly Ser Pro Arg Thr Gly Gln Ile Phe

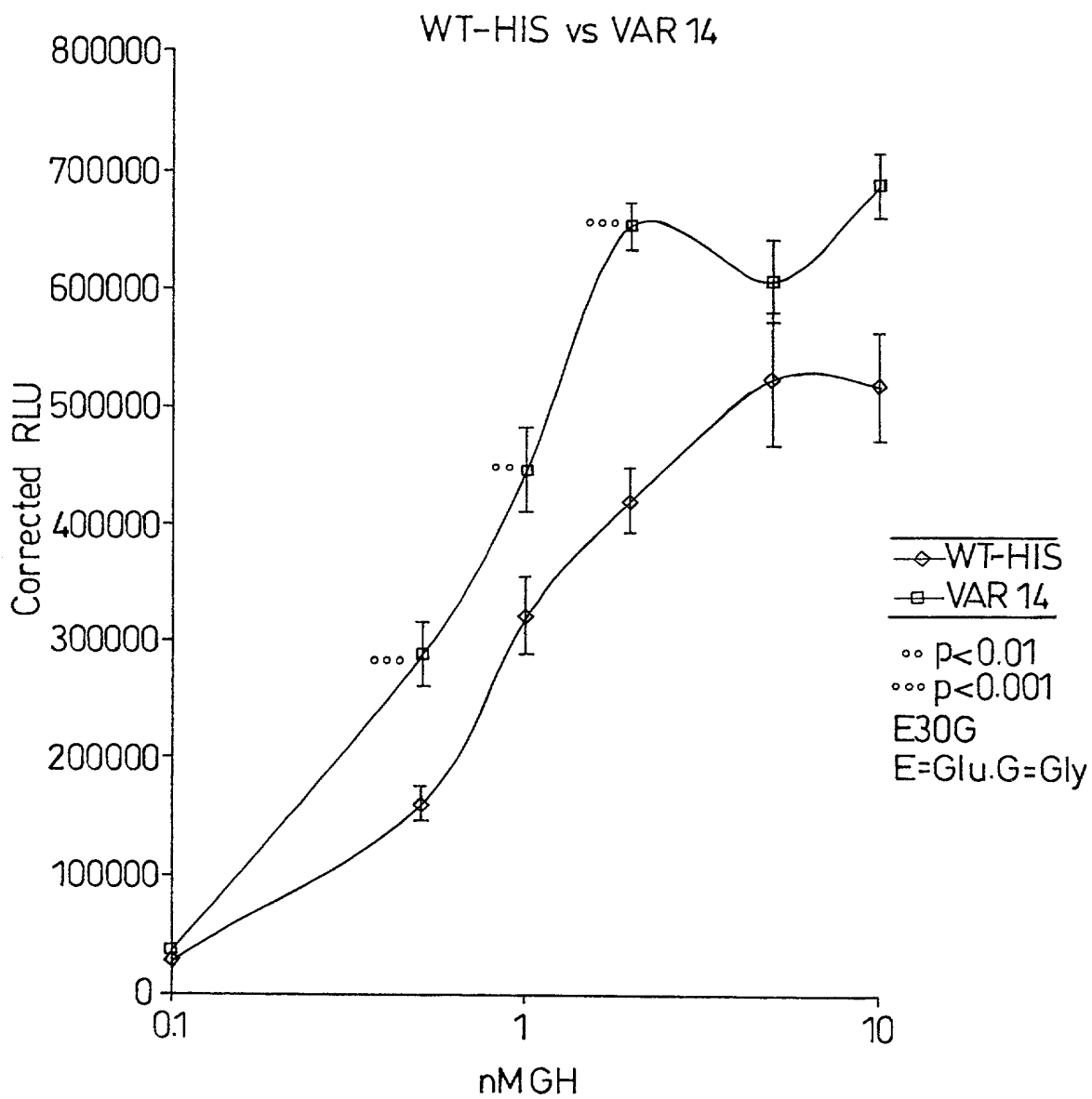
40 140 AAG CAG ACC TAC AGC AAG TTC GAC ACA AAC TCA CAC AAC GAT GAC 154  
 Lys Gln Thr Tyr Ser Lys Phe Asp Thr Asn Ser His Asn Asp Asp

155 GCA CTA CTC AAG AAC TAC GGG CTG CTC TAC TGC TTC AGG AAG GAC 169  
 Ala Leu Leu Lys Asn Tyr Gly Leu Leu Tyr Cys Phe Arg Lys Asp

45 170 ATG GAC AAG GTC GAG ACA TTC CTG CGC ATC GTG CAG TGC CGC TCT 184  
 Met Asp Lys Val Glu Thr Phe Leu Arg Ile Val Gln Cys Arg Ser

185 GTG GAG GGC AGC TGT GGC TTC TAG  
 50 Val Glu Gly Ser Cys Gly Phe \*

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**Fig. 8**